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# Selected Speeches and News Releases

November 29 - December 6, 1990

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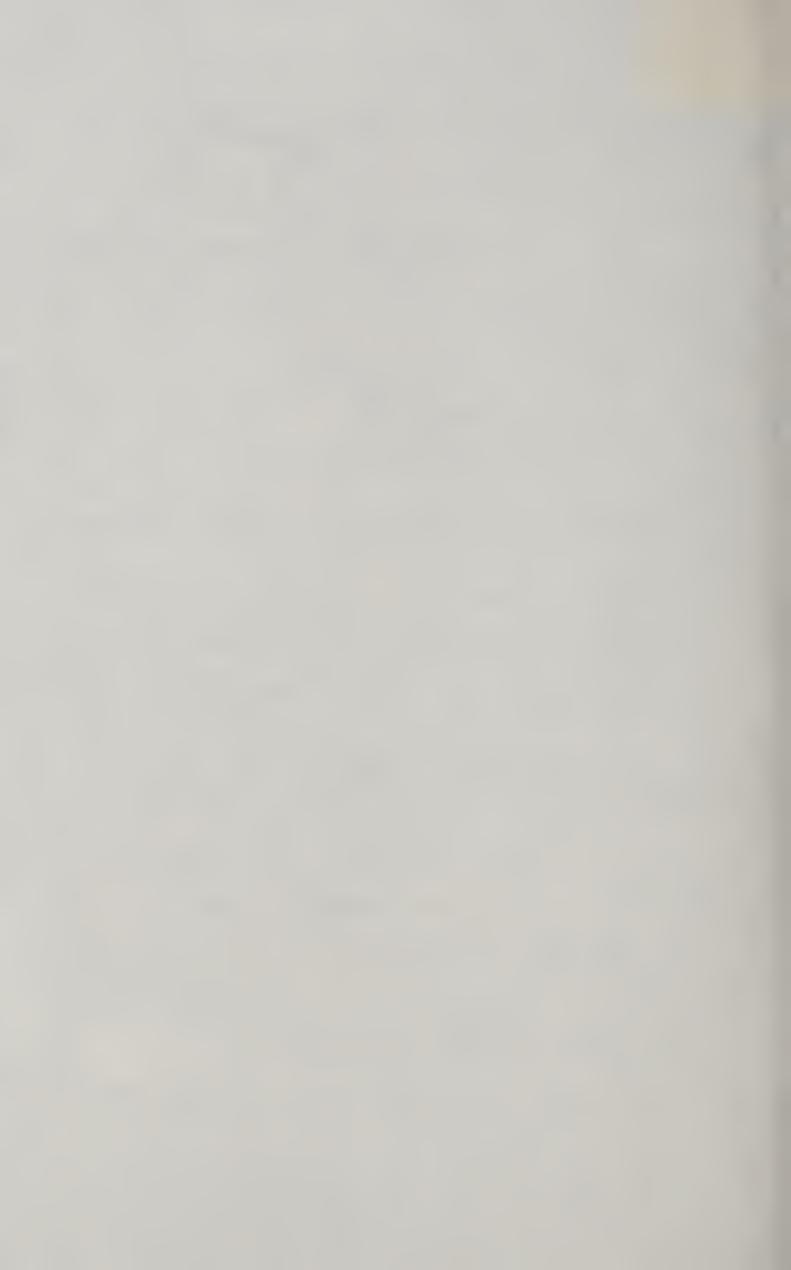
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# News Releases

U.S. Department of Agriculture • Office of Public Affairs

#### FIRST PARTNERSHIP MEETING SET FOR USDA AND HACU

WASHINGTON, Nov. 29—Assistant Secretary of Agriculture for Administration Adis M. Vila today announced that the U.S. Department of Agriculture will hold its first partnership meeting with the Hispanic Association of Colleges and Universities (HACU) on Friday, Nov. 30.

On June 4, USDA and HACU signed an agreement to establish a cooperative framework to develop a USDA/Hispanic-Serving Institutions Partners Program. The program will increase employment opportunities in USDA for students of HACU member institutions. To implement this agreement a USDA/HACU Leadership Group was established consisting of twelve USDA and HACU representatives. The leadership group will be chaired by Vila.

"The USDA/HACU agreement is a good example of the programs we are developing to accomplish the goals set forth in 'Framework for Change: Work Force Diversity and Delivery of Programs'" said Vila.

Framework for Change is a comprehensive plan to build a diverse work force approximating the nation's labor force at all levels of USDA, to achieve a work force that values cultural diversity and provides career advancement opportunities, and ensure that USDA's work force delivers programs in an efficient, effective and fair manner by the year 2000.

Vila said, "To increase Hispanic participation in USDA we must undertake special initiatives to encourage more Hispanics to study the agricultural sciences. The agreement with HACU gives the leadership group a forum to develop programs that reach out to Hispanics so they may have the education, employment, and training opportunities necessary to compete for professional careers with USDA. This effort complements other programs to attract more minorities to careers in agriculture."

The HACU members of the leadership group are: Dr. John A. Depaoli, president, Imperial Valley College, Imperial, Calif.; Dr. Miguel A. Nevarez, president, Pan American University, Edinburg, Texas; Dr. James E. Halligan, New Mexico State University, Las Cruces; Dr. Frederico M. Matheu, Inter-American University of Puerto Rico, San

German, P.R.; Dr. Raul Cardenas, president, South Mountain Community College, Phoenix, Ariz.; and Dr. Eduardo Padron, president, Mitchell Wolfson New World Central Campus, Miami Dade Community College, Fla.

In addition to Vila, the USDA members of the leadership group are: Dr. Duane Acker, administrator, Office of International Cooperation and Development; Dr. Alejandro B. Thiermann, deputy administrator, Animal and Plant Health Inspection Service; William L. Rice, deputy chief, Forest Service; David Chen, associate administrator, Farmers Home Administration; and Dr. Mary E. Carter, associate administrator, Agricultural Research Service.

Fred Cooper (202) 447-6905

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### USDA PUBLISHES FINAL RULE ON NET WEIGHT LABELING OF MEAT AND POULTRY PRODUCTS

WASHINGTON, Nov. 29—The U.S. Department of Agriculture's Food Safety and Inspection Service has published new regulations effective May 29, 1991, to ensure the accuracy of net weight statements on meat and poultry product labels.

"The regulations are designed to enhance the ability of federal, state, and local agencies to enforce strict and uniform net weight standards," said FSIS Administrator Dr. Lester M. Crawford.

The new rule allows FSIS to establish uniform national standards for weighing devices and uniform procedures to ensure that weights for meat and poultry products are accurate. While the weights of individual packages may vary slightly from the statement on the label under the new rule, the average weight for each lot of products must equal or exceed the declared net weight. The net weight of a food product excludes the weight of packaging materials.

Under the change, two handbooks produced by the National Institute of Science and Technology (formerly National Bureau of Standards) will be incorporated into the regulations for compliance testing of packages to ensure they are not underweight. NIST Handbook 133 furnishes sampling plans to ensure compliance at plant and retail levels. NIST Handbook 44 specifies procedures and requirements for accurate weighing devices. Definitions of net weight found in the handbooks will now be adopted by

FSIS. Many state and local governments already have adopted these handbook provisions.

The regulations allow state and local inspectors to use either "dry tare" or "wet tare" testing methods. In dry tare testing, which FSIS uses and recommends, product liquids that later seep into the packaging are still considered part of the product. In wet tare testing, such liquids are not included in the final product weight.

"FSIS has spent many years working toward this rule by consulting with technical standards experts, state and local officials, and industry and consumer representatives," Crawford said. A total of 38 comments were received on the March 6, 1989, FSIS proposal to amend net weight regulations. Crawford said that the National Conference on Weights and Measures was the principal forum for developing consensus on how to determine the net weight of meat and poultry products.

Many federally inspected plants already have adopted partial quality control programs approved by FSIS as a way of complying with net weight requirements and achieving greater consistency in net weight packing. FSIS expects other plants may use this approach to comply with the new regulation, Crawford said.

The final rule is scheduled to be published Nov. 30 in the Federal Register.

The Food Safety and Inspection Service and its 9,000 employees are dedicated to ensuring that meat and poultry products are safe, wholesome, and accurately labeled.

Jim Greene (202) 382-0314

#

# USDA QUARANTINES AREA IN CALIFORNIA TO PREVENT SPREAD OF PEACH FRUIT FLIES

WASHINGTON, Nov. 30—The U.S. Department of Agriculture has quarantined a 75-square-mile area of Orange County, Calif., following the recent discovery of peach fruit flies there.

As a result, peaches and certain other fruits and vegetables may not be moved out of the state unless the items are inspected and treated, according to James W. Glosser, administrator of USDA's Animal and Plant Health Inspection Service. The quarantined area is in the community of Fountain Valley, west of Santa Ana, Calif. Few of the

small agricultural enterprises in Fountain Valley ship outside the state.

The objective of the quarantine is to prevent the spread of the exotic pest to other agricultural areas. California has implemented its own quarantine to prevent spread of the pest within the state.

Glosser cited this new infestation by an exotic pest as an example of the need for international travelers to mark their customs forms to declare agricultural products they're bringing back from overseas. The pest has not had a foothold in the United States since 1987. Peach fruit flies attack mainly apples, guavas, loquats, mangos, peaches and tomatoes. An infestation in the United States would result in much ruined produce and lost exports.

In cooperation with APHIS, officials of California state agencies have begun an intensive survey and eradication program against the peach fruit fly in the infested area. The environmental assessment was prepared in 1987 and is being updated now. Intensive trapping will continue in and near the infested area to be sure all flies are being eliminated.

Notice of the quarantine action was published in the Nov. 29 Federal Register. Comments will be accepted if they are received on or before Jan. 28, 1991. An original and three copies of written comments referring to Docket 90-223 should be sent to Chief, Regulatory Analysis and Development; PPD, APHIS, USDA; Room 866 Federal Building; 6505 Belcrest Road; Hyattsville, Md. 20782. Comments may be inspected after receipt at USDA, Rm 1141-S, 14th Street and Independence Avenue, S.W., Washington, D.C., 8 a.m.-4:30 p.m., Monday through Friday, except holidays.

Amichai Heppner (301) 436-5222

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# USDA QUARANTINES SECOND FLORIDA AREA BECAUSE OF CITRUS CANKER

WASHINGTON, Nov. 30—The U.S. Department of Agriculture is quarantining a second small area in Florida because citrus trees there were found to be infected with the Asiatic strain (A strain) of citrus canker.

The newly imposed quarantine encompasses about 29 square miles in Highlands County near Lake Placid, according to James W. Glosser, administrator of USDA's Animal and Plant Health Inspection Service.

About 55 acres of producing citrus groves are included. Untreated citrus from these groves must be shipped direct to processing plants; if it is inspected and treated, it can be shipped, but only to states that don't produce citrus.

Only one of the groves has infected trees. These trees and nearby ones have been cut and burned to eradicate the infection.

The other small Florida area with an A-strain infection has been quarantined since 1986. It includes two commercial groves in Manatee County.

Citrus canker is caused by a bacterium that inflicts heavy damage to plant tissues and fruit of citrus, kumquats and some ornamental plants. Without controls, the disease can spread rapidly.

Precise delineation of the quarantine is being published in the Nov. 29 Federal Register as an interim rule. Comments will be accepted if they are received by Jan. 28, 1991. An original and three copies of written comments referring to Docket 90-221 should be sent to Chief, Regulatory Analysis and Development; PPD, APHIS, USDA; Room 866 Federal Building; 6505 Belcrest Road; Hyattsville, Md. 20782. Comments may be inspected after receipt at USDA, Rm. 1141-S, 14th Street and Independence Avenue, S.W., Washington, D.C., 8 a.m.-4:30 p.m., Monday through Friday, except holidays.

Amichai Heppner (301) 436-5222

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### BENEFICIAL WASPS USE PLANTS' SCENTS TO SEEK AND DESTROY ARMYWORMS

WASHINGTON—Chewing on a corn leaf spells doom for a beet armyworm, because a bite makes the plant produce odors that attract armyworm enemies, U.S. Department of Agriculture scientists found.

The scientists reported in the weekly journal Science, released today, that a female Cotesia marginiventris wasp tracks the plant-produced scents to find an armyworm in which she can lay her eggs. Eggs develop into larvae that feed inside the armyworm.

Ironically, the scents are probably manufactured in the plant to be insect repellents—aimed at future armyworm nibblers.

But Ted C.J. Turlings, James H. Tumlinson III and W. Joe Lewis, with USDA's Agricultural Research Service, found that these intended repellents attract the wasp directly to an armyworm.

This is the first evidence that beneficial wasps use a plant's defensive scents to hunt caterpillars.

"We believe the same system works with other crops and with other parasitic wasps," said Turlings, a research associate from the Netherlands. He and Tumlinson work at the Insect Attractants, Behavior and Basic Biology Research Laboratory in Gainesville, Fla.

The research team hopes to make better biological control agents of the wasps by exploiting their proficiency in detecting and responding to chemical scents produced by plants.

The work could give farmers biological controls for this and other pests that gobble up billions of dollars worth of crops a year, said Tumlinson, a chemist and leading expert on insect chemical communication.

Lewis, an entomologist with the ARS Insect Biology and Population Management Laboratory in Tifton, Ga., said that some of the scents could potentially be used to "simulate damage" and help a crop recruit wasps to an infected field. Most of the scent chemicals are commercially available, and those that aren't have already been reproduced in the laboratory.

Further, Tumlinson noted, crops could possibly be genetically engineered to produce more of these chemicals when attacked by caterpillars and to produce them more quickly. "The scents would attract more enemies into the field sooner, before caterpillars have actually done extensive damage to the crop."

Another potential is for insect rearing companies to "train" parasitic wasps to recognize the scents before they get to the field. Earlier studies by this research team showed that such training sharpens the wasps' ability to find caterpillars. "These wasps are much better at homing in on scents if they have had previous experience associating them with a host or its feces," Lewis said.

The training could even get as specific as manipulating wasps to focus on a specific caterpillar on a specific crop. The scientists have preliminary evidence that leaves chewed upon by different kinds of caterpillars produce different scents.

"We think the wasps can differentiate between the scents," Turlings said.

For example, C. marginiventris will attack both corn earworms and beet armyworms—but prefers an armyworm.

If a corn field has both, the wasp would tend to home in on the chemicals from plants nibbled by the armyworm to locate that specific insect.

But if farmers wanted them to focus on corn earworms, the "prerelease training" could be with chemicals produced when earworms feed on corn.

The new discovery results from a series of tests that Turlings, Tumlinson and Lewis conducted with corn plants, wasps and beet armyworms.

They found that a leaf damaged by a pair of scissors or razor blade did not produce the scents. But when they applied some armyworm saliva on the damaged sites, the chemicals appeared in about 10 hours—similar to when a caterpillar chews on a leaf.

"There is something in the saliva that triggers the plant to produce the chemicals, which we believe to be defensive," Turlings said, noting they don't know what it is yet.

The fact that the plant takes several hours to produce the chemicals indicates that it actively synthesizes them in response to the insect's chewing the leaf, he said. "It's not just something inside the leaf that the caterpillar released by biting."

"The fascinating thing," Lewis said, "is that the wasps can cue in on this system to locate a caterpillar host."

This research is a continuation of work in which the scientists found that another parasitic wasp, Microplitis croceipes, locates corn earworms by tracking chemicals released from earworm feces.

Now the team will explore in more detail how these two and other biocontrol wasps respond to feces odors and plant defense chemicals. "We plan to use the new knowledge to develop more effective biological control methods with these wasps," Lewis said.

Jessica Morrison Silva (301) 344-3927 Issued: Nov. 30, 1990

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### USDA ANNOUNCES 1991 EXTRA LONG STAPLE COTTON LOAN RATE

WASHINGTON, Nov. 30—Secretary of Agriculture Clayton Yeutter today announced that the 1991 loan rate for extra long staple (ELS) cotton will be 82.99 cents per pound.

The Agricultural Act of 1949, as amended, requires the U.S. Department of Agriculture to announce the 1991 ELS cotton loan rate no later than Dec. 1.

The 1991 loan rate is equal to 85 percent of the average price received by ELS producers, as determined by the secretary of agriculture, during three years of the five-year period ending July 31, 1990, excluding the years in which the average was the highest and the lowest.

Other details of the 1991 ELS cotton program will be announced later.

Robert Feist (202) 447-6789

#

### WALK SOFTLY AND CARRY A BIG STICK—TO CONTROL BOLL WEEVILS

WASHINGTON—Factory-reject broomsticks are finding a new life in the war against boll weevils, cotton's nastiest enemy. As "bait sticks," these rejects dot test plots in cotton fields and the result is a sharp decrease in the use of pesticide.

A plastic cap attached to the 4-foot-long wooden stick promises boll weevils food and sex but lures them to a surprise death. Weevils chew the insecticide-laced cap and die shortly after.

"It's a simple concept, really, but represents putting together findings from 30 years of research on boll weevil behavior and the boll weevil pheromone," says Gerald H. McKibben, a U.S. Department of Agriculture scientist.

"We use 100 times less insecticide—only 1 gram—per acre," says McKibben, an entomologist with USDA's Agricultural Research Service. It normally takes several spray applications of organophosphate insecticide to control the weevil.

How well do the bait sticks work? So far, in the second year of tests on Mississippi cotton fields, McKibben has found up to 70 percent fewer boll weevils.

Amid public concern over farm chemicals escaping into soil and groundwater, he says, the bait stick could be a new way to protect the environment from excessive use of insecticides.

"It's possible that the bait stick idea could be used for other insect pests on other crops in the future," says McKibben, "but we have to test that further."

"Our bait stick costs only about \$1 to manufacture," he said. "That means it could be a viable alternative to control a pest that costs more than \$300 million annually in crop losses and chemical control."

McKibben, who developed the stick at the ARS Boll Weevil Laboratory in Starkville, Miss., says his agency has signed research and development agreements with Ciba-Geigy Corp., Greensboro, N.C., and Mobay Corp., Kansas City, Mo., to improve the stick for commercial use.

McKibben makes the caps from a mixture of polyvinyl chloride (PVC) plastic, a lime-green pigment already proven to attract weevils, a sex attractant called grandlure, a feeding stimulant and the insecticide cyfluthrin.

According to McKibben, a patent has been filed for the cap. Weevils can chew it, but it also stands up to harsh weather, he says, so the insecticide stays where it's supposed to instead of getting into the soil and groundwater.

On the wooden stick, McKibben paints a chemical coating that also kills the boll weevils. A patent has also been filed for the coating, which contains feeding stimulants, cyfluthrin and lime-green pigment.

McKibben and James W. Smith, research leader of the Starkville boll weevil laboratory, developed the coating to kill weevils that landed on the stick but didn't climb up to the bait and insecticide.

Says McKibben, "the stick is a promising control for boll weevils particularly during the early and late cotton growing seasons."

Putting out bait sticks in the early spring—before the cotton plants flower—lures overwintering female weevils, he says. Otherwise, the eggs they lay in cotton buds will hatch into larvae that feed on the buds. Last year, McKibben found 100 to 150 dead weevils a week in aluminum pans placed under the bait sticks to catch the dead insects.

Later in the season, when the fields are defoliated so the cotton can be picked more easily, great numbers of weevils fly through the cotton fields. McKibben found 200 to 300 weevils a day in the pans last year.

A second set of tests has been run this year in Texas and Mississippi. "Texas tests are comparing the bait device, regular insecticide treatments and a combination. We will try to determine how many bait sticks are needed to lure and kill all or most of the weevils in a field," McKibben said.

"So far the results are very encouraging," says Smith. "We're planning future tests, including ones to see how long the bait is effective."

At present, one to four sticks per acre are manually placed in cotton fields four times per season. They have to be picked up by hand, so the researchers are considering cardboard stakes and biodegradable caps, Smith says.

Dvora Aksler Konstant (301) 344-3108 Issued: Dec. 3, 1990

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#### CCC INTEREST RATE FOR DECEMBER LOWERED TO 7-3/8 PERCENT

WASHINGTON, Dec. 3—Commodity loans disbursed in December by the U.S. Department of Agriculture's Commodity Credit Corporation will carry a 7-3/8 percent interest rate, according to Keith Bjerke, executive vice president of the CCC.

The 7-3/8 percent interest rate is down from November's 7-5/8 percent and reflects the interest rate charged CCC by the U.S. Treasury in December.

Robert Feist (202) 447-6789

#

# USDA OBTAINS PATENT ON FOOD POISONING DETECTION TEST

WASHINGTON, Dec. 4—A quick test to detect a relatively unknown food-poisoning bacterium in five minutes has been developed and patented by a U.S. Department of Agriculture scientist.

The test uses crystal violet dye that binds to disease-causing strains of the bacterium Yersinia enterocolitica, but not to harmless strains, said microbiologist Saumya Bhaduri of USDA's Agricultural Research Service.

An emerging food pathogen of concern to the Food and Drug Administration, the bacterium can grow in dairy, beef and other meat products at temperatures as low as 32 degrees F, he said.

Y. enterocolitica can reach infectious levels at refrigerated temperatures in four days. Once people eat the organism in contaminated food, it grows in the human intestine and produces toxins, causing abdominal pains, diarrhea and vomiting.

"Our new test will make it easier for industry and regulatory agencies to safeguard food by pinpointing the strains that are harmful," said Bhaduri, based at the ARS Eastern Regional Research Center in Philadelphia. "It is simpler, quicker and more reliable than current tests, which are often inconclusive and can take days to complete."

Bhaduri's test was exhibited today at the Government Laboratory and Industry Technology Transfer Conference at the Airport Marriott Hotel in Philadelphia. Sponsors are the Federal Laboratory Consortium and the Technology Transfer Conference.

"We've used the purple dye for only the one bacterium," said Bhaduri, who works in the Philadelphia center's microbial food safety laboratory. "It opens up a new approach for the rapid identification of pathogens, although we need further study."

Several companies have expressed an interest in commercializing the technology. Ann Whitehead, coordinator of USDA's national patent program, said private industry can license the newly issued patent.

Bhaduri said the test relies on the purple dye to bind to an unidentified substance produced in Y. enterocolitica strains containing a plasmid. A plasmid is a small piece of DNA that can be used to carry messages. In this case, the presence of the plasmid converts a harmless strain to a diseasecausing organism.

Bhaduri said the test also gives scientists a way to study whether salt, acidity, radiation or other treatments will eliminate the poison-producing plasmid, rendering the organism harmless.

According to the New England Journal of Medicine, ingestion of contaminated foods, bottled water, contact with sick pets and transfusion of contaminated blood have been implicated as possible ways to transmit

Y enterocolitica. The National Centers for Disease Control has received several reports of food poisoning from Y. enterocolitica in recent years.

Bruce Kinzel (301) 344-2739

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### USDA TO REQUIRE INSPECTION AND CERTIFICATION OF ALL PEANUTS

WASHINGTON, Dec. 4—The U.S. Department of Agriculture will require that all peanuts sold for human consumption must be inspected, certified and identified by lot, effective today.

Daniel D. Haley, administrator of USDA's Agricultural Marketing Service, said approximately 95 percent of the peanuts marketed for human consumption are done so under marketing orders and are inspected and certified for size, quality and condition to assure a safe supply for consumers. A federal law enacted in December 1989—Public Law 101-220—requires that the remaining portion of the peanut crop that does not fall under marketing orders be inspected, certified and tested, Haley said.

AMS conducts the program on a fee basis for peanut handlers. Most handlers now operate under a "Peanut Marketing Agreement," which is authorized by the Agricultural Marketing Agreement Act of 1937. An 18-member administrative committee of peanut producers and handlers locally administers the program, and the committee's work is financed by assessments on handlers who have signed the "Peanut Marketing Agreement." The administrative committee works with AMS in the inspection, certification, and testing program.

Haley noted that under the agreement, peanut handlers are indemnified for peanuts tested and found unsuitable for human consumption because of aflatoxin contamination. Only handlers who have signed the agreement are eligible for indemnification, he said.

Handlers whose peanuts until now have not been tested, but which will be tested under the new law, may wish to sign the agreement to take advantage of the indemnification program, Haley said. They should contact the Peanut Administrative Committee, P.O. Box 18856, Lenox Square Station, Atlanta, Ga. 30326; telephone (404) 261-7800.

Details of the requirements will appear as a final rule in today's Federal Register. Copies and additional information are available from Patrick Packnett, Marketing Order Administration Branch, Fruit and Vegetable Division, AMS, USDA, Rm. 2530-S, P.O. Box 96456, Washington, D.C. 20090-6456; telephone (202) 475-3862.

Carolyn Coutts (202) 447-8998

#

# FGIS REVISES FEE STRUCTURE FOR AFLATOXIN, FALLING NUMBER TESTS

WASHINGTON, Dec. 5—The U.S. Department of Agriculture's Federal Grain Inspection Service has established new aflatoxin test fees and a separate hourly rate for performing falling number determination for wheat at the applicant's facility.

FGIS has established a special hourly rate for performing aflatoxin tests other than Thin-Layer Chromatography (TLC) or Holaday-Velasco (HV) minicolumn methods at an applicant's facility that uses an approved aflatoxin test kit. In addition, FGIS will assess a unit fee for the use of an aflatoxin test kit at the applicant's facility. Further, FGIS has established an aflatoxin laboratory fee to be charged by FGIS's Beltsville laboratory and other field laboratories when performing aflatoxin tests other than TLC or minicolumn methods.

These tests are performed under the authority of the Agricultural Marketing Act (AMA) of 1946.

John C. Foltz, FGIS administrator, said the agency is required by law to cover, as nearly as practical, costs for these tests. Present hourly rates are not covering the costs of the services. These aflatoxin and falling numbers tests are increasely important to foreign buyers of U.S. grain, Foltz said. Further, exporters are requesting that test results be determined at an applicant's facility, Foltz said, thereby eliminating delays caused by mailing samples to the Beltsville laboratory.

"In response to industry's recommendation, we reduced the contract hourly rate from that presented in the proposal," Foltz said. "It was suggested that a larger disparity between the contract and noncontract hourly rates would promote greater utilization of total hours." The new fee schedule was published today in the Federal Register. For more information contact Paul D. Marsden, Resources Management Division, USDA, FGIS, Box 96454, Washington, DC, 20090-6454, telephone (202) 447-3428.

Allen A. Atwood (202) 475-3367

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#### USDA ANNOUNCES PEANUT QUOTA REFERENDUM

WASHINGTON, Dec. 6—The U.S. Department of Agriculture today announced that peanut growers will be asked to vote Dec. 10-13 in a mail referendum to decide whether poundage quotas and price support will continue for the peanut crops for the next five years.

The Food, Agriculture, Conservation and Trade Act of 1990 requires USDA to conduct the referendum not later than Dec. 15.

If two-thirds or more of the producers voting favor poundage quotas, no referendum will be held for the second, third, fourth, and fifth years of the period and quotas and price support will remain in effect for the 1991 through 1995 crops of peanuts. If more than one-third of the producers vote against quotas, poundage quotas and price support will not be in effect for the 1991 crop of peanuts. However, another referendum would be conducted next year to determine if quotas will be in effect for the 1992 through 1995 crops.

Producers are eligible to vote if they were engaged in the production of quota peanuts in 1990. Producers are ineligible to vote if their only interest in peanut production in 1990 was on a farm on which the land harvested for nuts was one acre or less, there was no poundage quota, or the production was for consumption exclusively as boiled peanuts.

In a 1986 referendum, 97.4 percent of the 21,456 peanut growers who voted cast ballots in favor of poundage quotas for the 1986 through 1990 crops of peanuts.

Bruce Merkle (202) 447-8206

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### 1990 WHEAT, BARLEY, OATS PRODUCERS TO RECEIVE PAYMENTS

WASHINGTON, Dec. 6—Approximately \$1.743 billion in deficiency and 0/92 payments will be made to eligible producers of the 1990 wheat, barley and oats crops, according to Keith Bjerke, executive vice president of the U.S. Department of Agriculture's Commodity Credit Corporation.

Barley producers will receive about \$35 million and oats producers about \$8 million.

Bjerke said the payments will be in cash through Agricultural Stabilization and Conservation Service county offices.

Deficiency payments are made under the 1990 wheat, barley and oats programs when the national weighted average market prices received by producers during the first five months of the marketing year (June through October) are below established "target" price levels.

Deficiency payment rates are based upon the difference between the target price for the commodity and the higher of the five-month average market price or the basic loan rate.

Eligible producers will receive a payment as shown in the following table:

#### Calculation of 5-Month Deficiency Payment Rates

		Wheat	Barley \$ bu.	Oats
A.	Target Price	4.00	2.36	1.45
B.	Basic Loan Rate	2.44	1.60	1.01
C.	5-Month Market Price	2.72	2.14	1.12
D.	5-Month Deficiency Rate (A - C)	1.28	.22	.33
E.	Minus Deficiency Payment Reduction	.0233	.0200	.0123
F.	Adjusted 5-Month Payment Rate			
	(D - E)	1.2567	.2000	.3177
G.	Adjusted Advance Deficiency Payment	.3367	.0840	.0000
H.	Net 5-Month Deficiency Payment Rate			
	(F - G)	.9200	.1160	.3177

Advance payment rates were reduced by 2.33 cents for wheat and 2 cents for barley. Oats producers did not receive an advance but their

payment rate will be reduced by 1.23 cents. These reductions were required by the Omnibus Budget Reconciliation Act of 1989. All deficiency payments will be reduced by 1.4 percent as required by the Balanced Budget and Emergency Deficit Control Act of 1985 (Gramm-Rudman-Hollings).

Producers who enrolled in the wheat, barley and oats 0/92 programs were guaranteed a minimum payment rate of \$0.90 per bushel for wheat and \$0.26 for barley. Oats producers did not receive a guaranteed payment rate. Eligible producers will receive this guaranteed rate less any advance in 0/92 payments they have already received.

Bruce Merkle (202) 447-8206

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#### NEW GERMPLASM HELPS ASSURE FOOD FOR THE FUTURE

WASHINGTON—About a hundred times a year, U.S. Department of Agriculture researchers release new plant varieties with traits which improve the odds of tomorrow's crops thriving despite threats by viruses, bacteria, fungi, insects or unfriendly weather and soils.

Breeding stronger crop plants is "key to feeding the world's population," said Henry L. Shands of USDA's Agricultural Research Service. Based in Beltsville, Md., Shands is the agency's national program leader for research on germplasm, the genetic material in seeds, cuttings and live plants.

Early breeding experiments focused on boosting yield. Shands said this was the primary aim of more than half the new strains released by ARS in the 1960's. But today, he added, "the research strives to customize a crop to withstand diseases, pests and environmental stresses such as drought, while preserving traits for high yield."

Between June 1, 1984, and June 1, 1989, he noted, ARS made 599 crop germplasm releases with improved resistance to some pest or disease.

"These releases consisted of 147 actual plant varieties and 452 germplasm lines—strains of plants with useful traits that breeders can transfer into existing varieties," Shands said.

Approximately 80 percent of the releases over the 5-year period had improved disease resistance, 30 percent had improved insect resistance and about 10 percent had improved resistance to tiny worms in soil

known as nematodes. Some releases contained more than one kind of resistance, pushing the total beyond 100 percent, he said.

Researchers continuously seek new genetic resources because "pests such as insects and pathogens have an amazing capacity to break crop resistance," he said. "Resistant varieties usually become obsolete in three to 10 years. And it generally takes eight to 11 years to breed new ones."

The current U.S. germplasm collections include nearly 400,000 plant introductions, cultivars and germplasm releases and are growing daily, he noted. The collections are kept and catalogued in the National Plant Germplasm System.

These collections, he said, are the source for a steady supply of new crop varieties bred for disease and pest resistance and other important benefits for farmers and consumers.

"In the United States alone," he said, "farmers grow more than 200 varieties of wheat, 85 varieties of cotton, 200 varieties of soybeans and many varieties of fruit, vegetable and ornamental crops. Disease and pest resistance must be bred into each of these varieties, which often thrive only in specific, limited growing areas."

Dennis Senft (415) 559-6068 Issued: Dec. 6, 1990

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